Missouri Botanical Garden
Climatron
Missouri Botanical Garden
2345 Tower Grove Avenue
St. Louis
Missouri

HABS No.MO-1135-L

HABS
MO,
96-SALU,
105L-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Department of the Interior
Washington, D.C. 20240

Form 10-920
(June 1983)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

HABS MO, 96-SALU, 105L-

ARCHITECTURAL DATA FORM

STATE	COUNTY	TOWN OR VICINITY
MISSOURI	none	ST. LOUIS

HISTORIC NAME OF STRUCTURE *(INCLUDE SOURCE FOR NAME)*: Climatron (Missouri Botanical Garden)

HABS NO.: MO-1135-L

SECONDARY OR COMMON NAMES OF STRUCTURE: none

COMPLETE ADDRESS *(DESCRIBE LOCATION FOR RURAL SITES)*: Missouri Botanical Garden (Shaw's Garden) 2345 Tower Grove Avenue, St. Louis, Missouri

DATE OF CONSTRUCTION *(INCLUDE SOURCE)*: 1960 (MBG)

ARCHITECT(S) *(INCLUDE SOURCE)*: Murphy and Mackey; R. Buckminster Fuller, inventor of geodesic dome; Frits W. Went, climate control (MBG)

SIGNIFICANCE *(ARCHITECTURAL AND HISTORICAL, INCLUDE ORIGINAL USE OF STRUCTURE)*: The Climatron is the world's first completely air-conditioned greenhouse and the first geodesic dome to be enclosed in rigid Plexiglass panels. The broad climactic range within the dome (from the Amazonian rain forest to the cool uplands of India) is achieved by sophisticated controls instead of conventional partitioning.

STYLE *(IF APPROPRIATE)*: Contemporary functional

MATERIAL OF CONSTRUCTION *(INCLUDE STRUCTURAL SYSTEMS)*: Aluminum and Plexiglass. Quarter-sphere frame supported by aliminum tubes under compression and aluminum rods under tension.

SHAPE AND DIMENSIONS OF STRUCTURE *(SKETCHED FLOOR PLANS ON SEPARATE PAGES ARE ACCEPTABLE)*: Unpartitioned quarter-sphere dome 175' in diameter and 70' high.

EXTERIOR FEATURES OF NOTE: Extruded structural system of geodesic dome.

INTERIOR FEATURES OF NOTE *(DESCRIBE FLOOR PLANS, IF NOT SKETCHED)*: Dome contains small stone pre-existing neo-classical pavilion and over 400 varieties of plant life. Bank of 24 floodlights, revolving at night in five-minute cycles, simulates noon light on one side of dome and moonlight on other side. Climate ranges from Amazon through Hawaii and Java to India.

MAJOR ALTERATIONS AND ADDITIONS WITH DATES: Replacement of original Plexiglass by more advanced clear plastic is currently (1983) planned.

PRESENT CONDITION AND USE: Condition is good except for deterioration of Plexiglass and adverse effect of humidity on some metal elements. Used since erection as public botanical exhibition building.

OTHER INFORMATION AS APPROPRIATE: Architects received the 1961 R. S. Reynolds Memorial Award of $25,000 for their architectural use of aluminum. Murphy and Mackey was the first American firm to receive the award.

SOURCES OF INFORMATION *(INCLUDING LISTING ON NATIONAL REGISTER, STATE REGISTERS, ETC.)*:
Barbara Mykrantz, Missouri Botanical Garden staff.
McCue, George. The Building Art in St. Louis: Two Centuries. St. Louis: St. Louis Chapter, American Institute of Architects, 1967, p. 75.

COMPILER, AFFILIATION	DATE
Denys Peter Myers, Architectural Historian, Historic American Buildings Survey, National Park Service	09/22/83